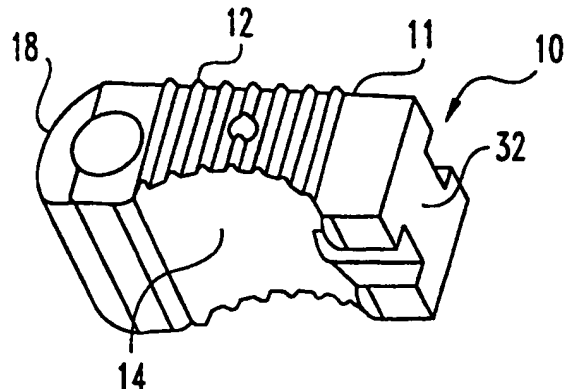




## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<b>(51) International Patent Classification <sup>7</sup> :</b>  <b>A61F 2/44</b>	<b>A3</b>	<b>(11) International Publication Number:</b> <b>WO 00/24327</b>  <b>(43) International Publication Date:</b> 4 May 2000 (04.05.00)
<b>(21) International Application Number:</b> PCT/US99/25147 <b>(22) International Filing Date:</b> 27 October 1999 (27.10.99)  <b>(30) Priority Data:</b> 09/181,353      28 October 1998 (28.10.98)      US  <b>(71) Applicant (for all designated States except US):</b> SDGI HOLDINGS, INC. [US/US]; Suite 508, 300 Delaware Avenue, Wilmington, DE 19801 (US).  <b>(72) Inventors; and</b> <b>(75) Inventors/Applicants (for US only):</b> BRANCH, Charles, L. [US/US]; 177 Plantation Lane, Advance, NC 27006 (US). LIU, Mingyan [CN/FR]; 41, rue de la Fontaine Grelot, F-92340 Bourg la Reine (FR). BOYD, Lawrence, M. [US/US]; 688 S. McLean Boulevard, Memphis, TN 38104 (US). JOSSE, Loic [FR/FR]; 13, La Plana, F-11570 Palaja (FR).  <b>(74) Agents:</b> LOWES, J., Andrew et al.; Woodard, Emhardt, Naughton, Moriarty & McNett, Suite 3700, Bank One Center/Tower, 111 Monument Circle, Indianapolis, IN 46204 (US).		<b>(81) Designated States:</b> AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).  <b>Published</b> <i>With international search report.</i>  <b>(88) Date of publication of the international search report:</b> 9 November 2000 (09.11.00)
<b>(54) Title:</b> INTERBODY FUSION GRAFTS AND INSTRUMENTATION  <b>(57) Abstract</b>  This invention relates to implants (10) formed from donor bone for use in lumbar interbody fusion procedures and instruments for performing such procedures. The implants are formed to include a concave surface (14) formed from a portion of the medullary canal of a long bone. The concaved surface defines a recess (15) in the implant that serves as a depot for osteogenic material. Specific instruments for inserting the implants prepared according to this invention and for preparing the intervertebral space to receive the implants are also provided.		


 EXHIBIT  
B

**FOR THE PURPOSES OF INFORMATION ONLY**

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
AU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
AZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	TJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav Republic of Macedonia	TM	Turkmenistan
BF	Burkina Faso	GR	Greece			TR	Turkey
BG	Bulgaria	HU	Hungary	ML	Mali	TT	Trinidad and Tobago
BJ	Benin	IE	Ireland	MN	Mongolia	UA	Ukraine
BR	Brazil	IL	Israel	MR	Mauritania	UG	Uganda
BY	Belarus	IS	Iceland	MW	Malawi	US	United States of America
CA	Canada	IT	Italy	MX	Mexico	UZ	Uzbekistan
CF	Central African Republic	JP	Japan	NE	Niger	VN	Viet Nam
CG	Congo	KE	Kenya	NL	Netherlands	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NO	Norway	ZW	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's Republic of Korea	NZ	New Zealand		
CM	Cameroon	KR	Republic of Korea	PL	Poland		
CN	China	KZ	Kazakhstan	PT	Portugal		
CU	Cuba	LC	Saint Lucia	RO	Romania		
CZ	Czech Republic	LI	Liechtenstein	RU	Russian Federation		
DE	Germany	LK	Sri Lanka	SD	Sudan		
DK	Denmark	LR	Liberia	SE	Sweden		
EE	Estonia			SG	Singapore		

# INTERNATIONAL SEARCH REPORT

International Application No.  
PCT/US 99/25147

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6 4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-4

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

## INTERNATIONAL SEARCH REPORT

PCI/US 99/25147

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 A61F2/44

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
X	WO 98 17330 A (SDGI HOLDINGS INC ;MCKAY WILLIAM F (US)) 30 April 1998 (1998-04-30) page 4, line 33 - line 34 abstract; figure 3 ---	1
A	WO 96 22747 A (ANTONIETTI PIERRE ;GAGNA GILLES (FR); STRYKER CORP (US)) 1 August 1996 (1996-08-01) claims 1,2,4 ---	1
A	US 5 458 642 A (BEER JACQUELINE M ET AL) 17 October 1995 (1995-10-17) figure 2 ---	1
A	EP 0 392 076 A (ACROMED CORP) 17 October 1990 (1990-10-17) figure 2 -----	1



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

## \* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*Z\* document member of the same patent family

Date of the actual completion of the international search

2 March 2000

Date of mailing of the international search report

25 JULY 2000

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Korth, C-F

**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

1. Claims: 1-4
2. Claims: 5-31
3. Claims: 32-33
4. Claims: 34-45
5. Claims: 46-49, 56-57
6. Claims: 50-54
7. Claims: 58-59
8. Claims: 60-61
9. Claim : 62

# INTERNATIONAL SEARCH REPORT

PCT/US 99/25147

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9817330 A	30-04-1998	AU 4985197 A EP 0934087 A	15-05-1998 11-08-1999
WO 9622747 A	01-08-1996	FR 2729557 A AU 4625696 A	26-07-1996 14-08-1996
US 5458642 A	17-10-1995	WO 9519153 A	20-07-1995
EP 0392076 A	17-10-1990	CA 1318469 A CS 9000640 A HU 52938 A JP 2215461 A JP 5053132 B KR 9505330 B US 5071437 A ZA 8909570 A	01-06-1993 11-06-1991 28-09-1990 28-08-1990 09-08-1993 23-05-1995 10-12-1991 26-09-1990